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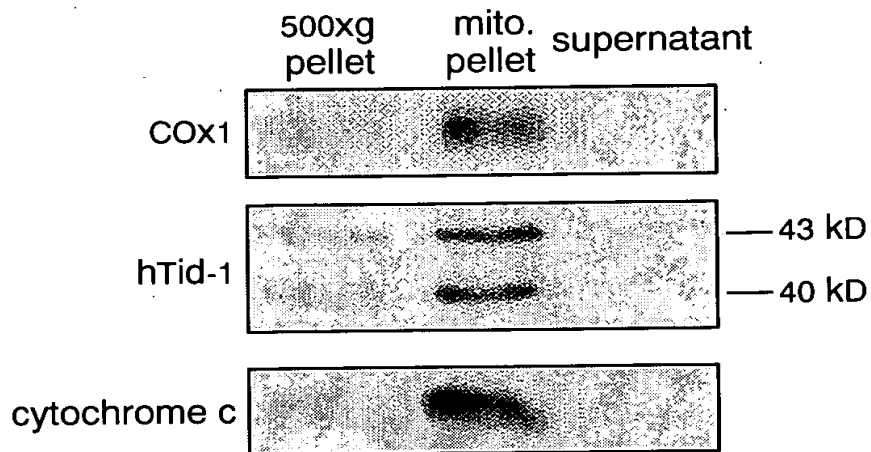


FIG. 1A

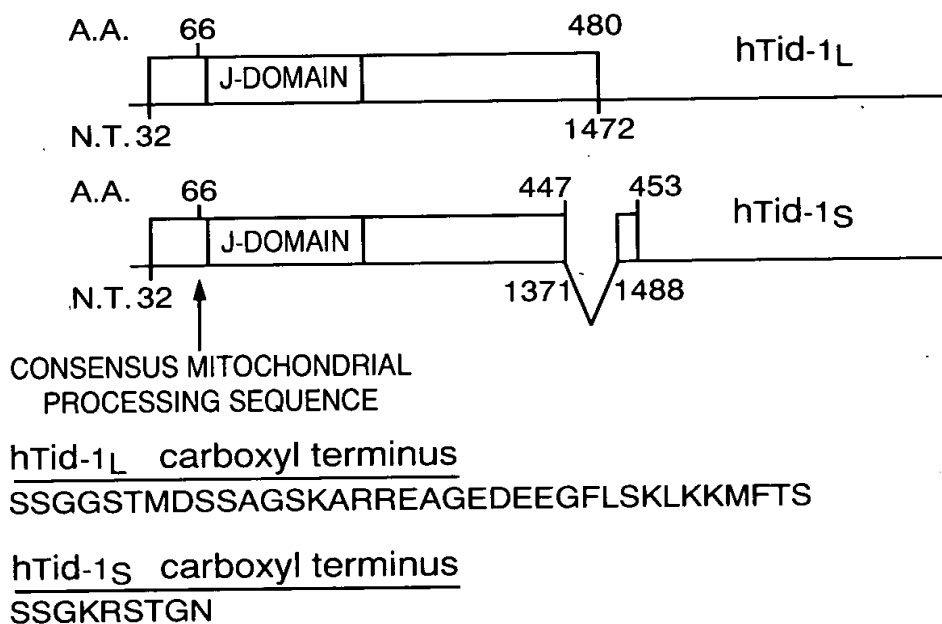


FIG. 1B



FIG. 1C



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PROTEASE ADDED  
 BEFORE SONICATION — + —  
 AFTER SONICATION — — +

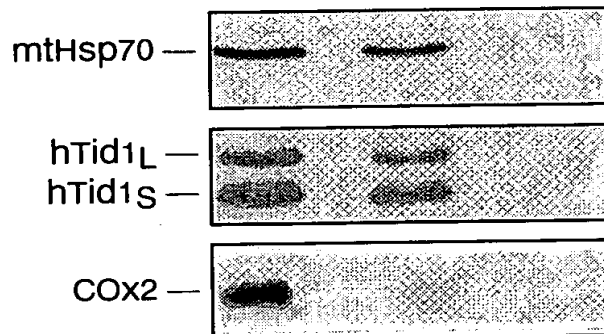


FIG. 2A

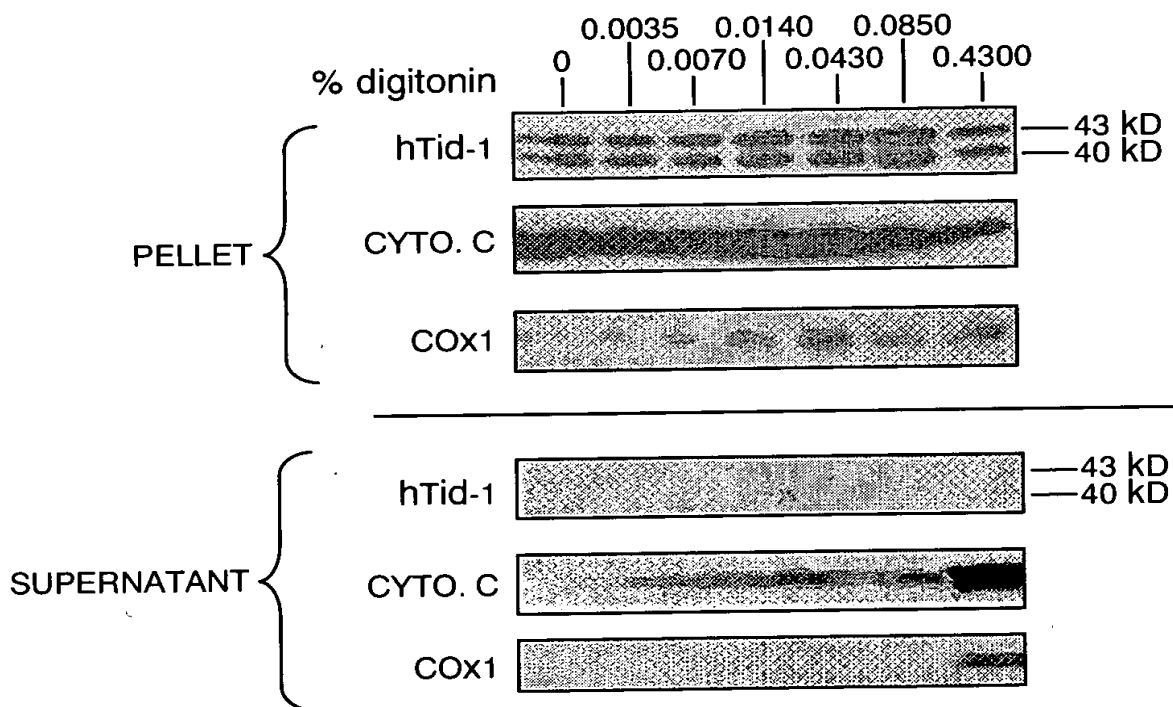


FIG. 2B

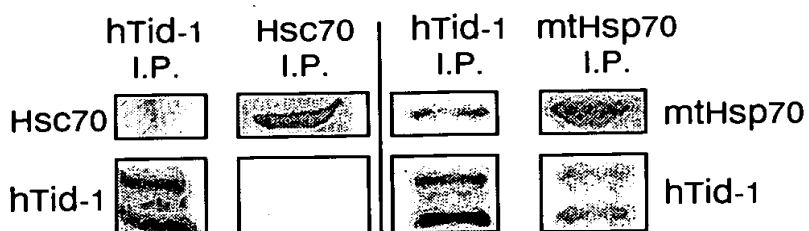


FIG. 2C

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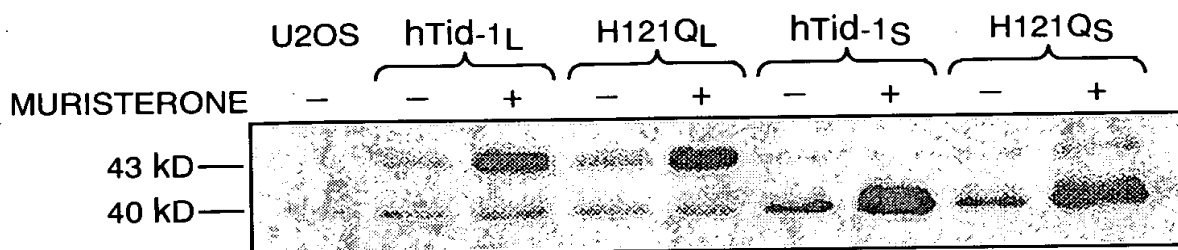


FIG. 3A

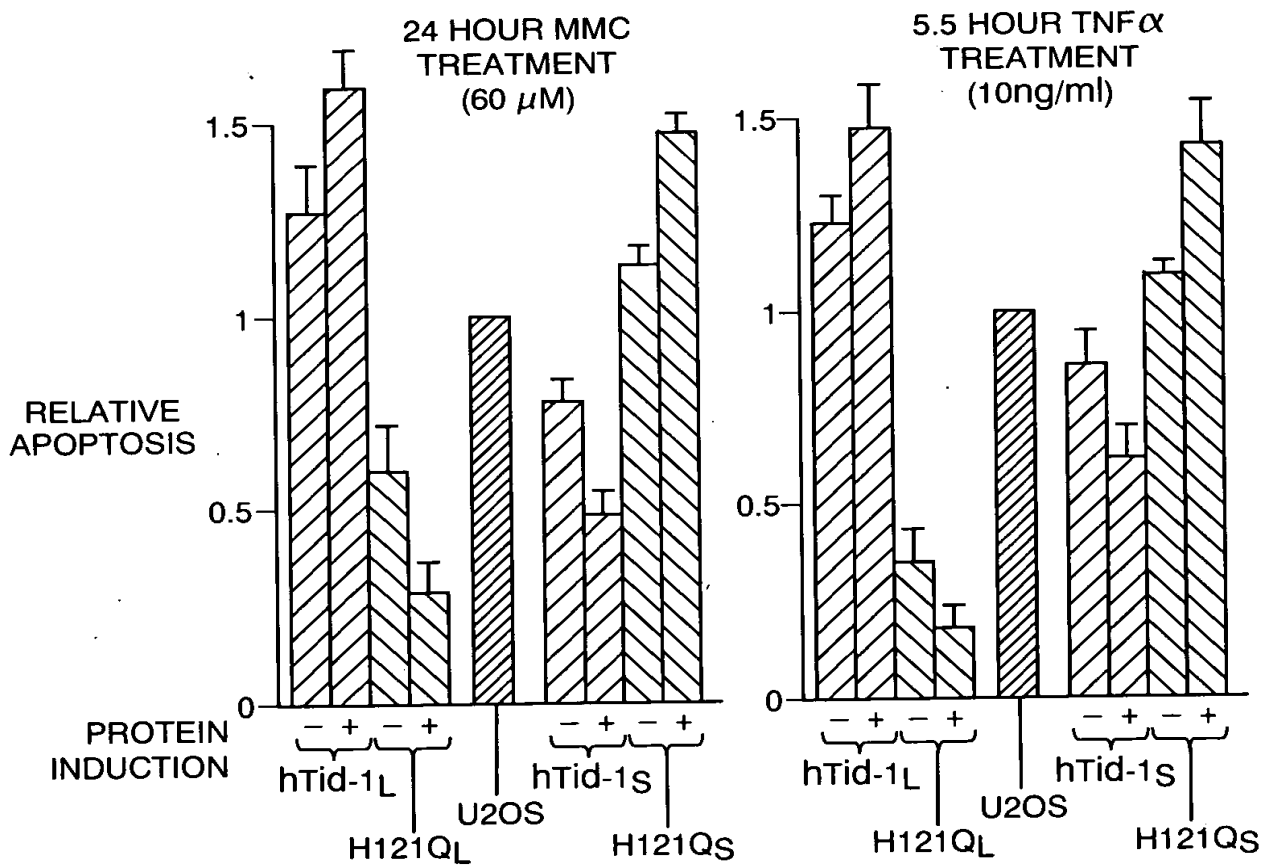
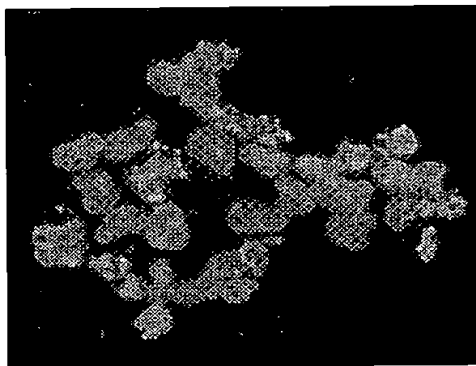


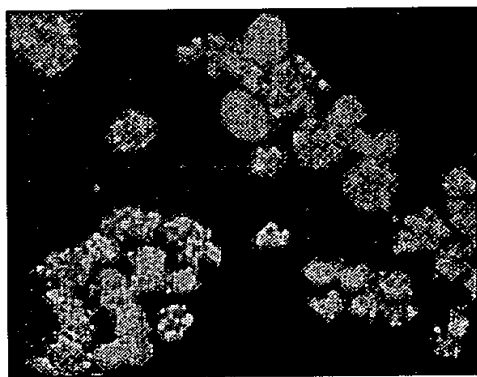
FIG. 3B



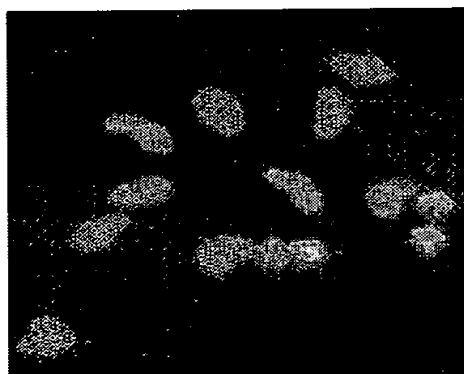
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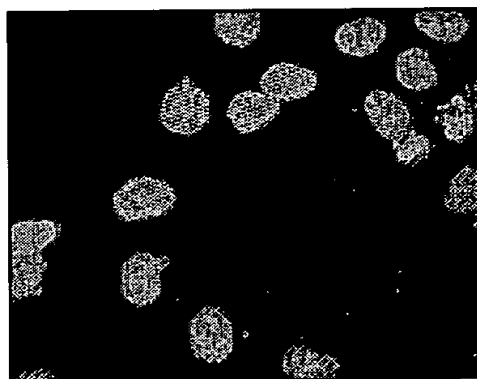
U2OS



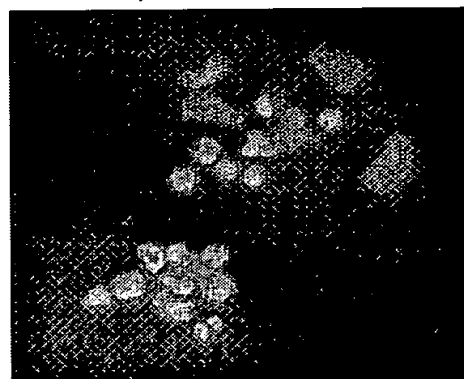
hTid-1<sub>L</sub>



hTid-1<sub>S</sub>



H121QL



H121QS

FIG. 3C



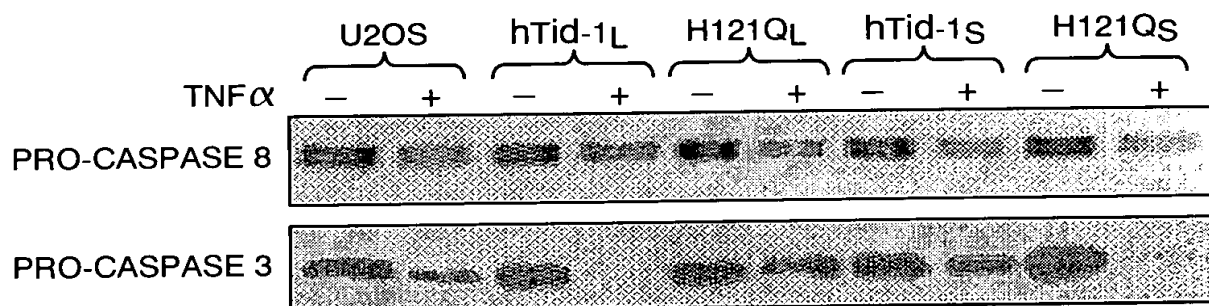


FIG. 4A



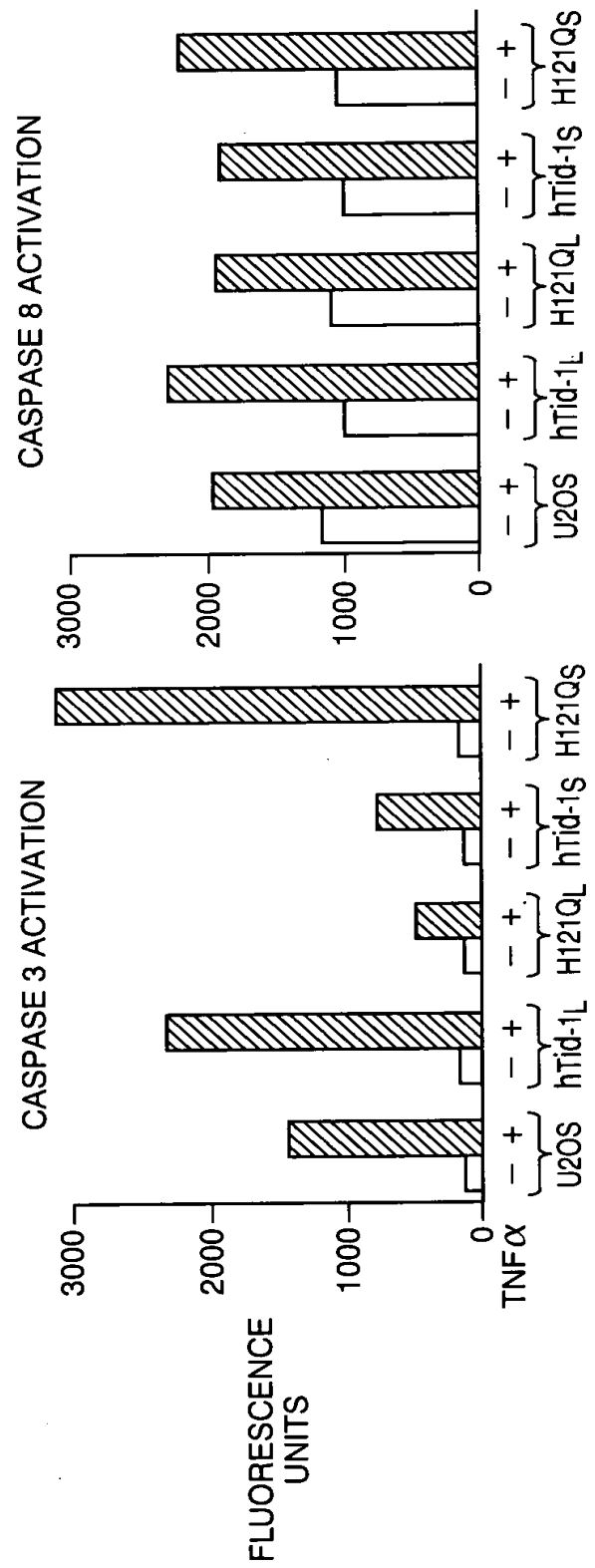


FIG. 4B



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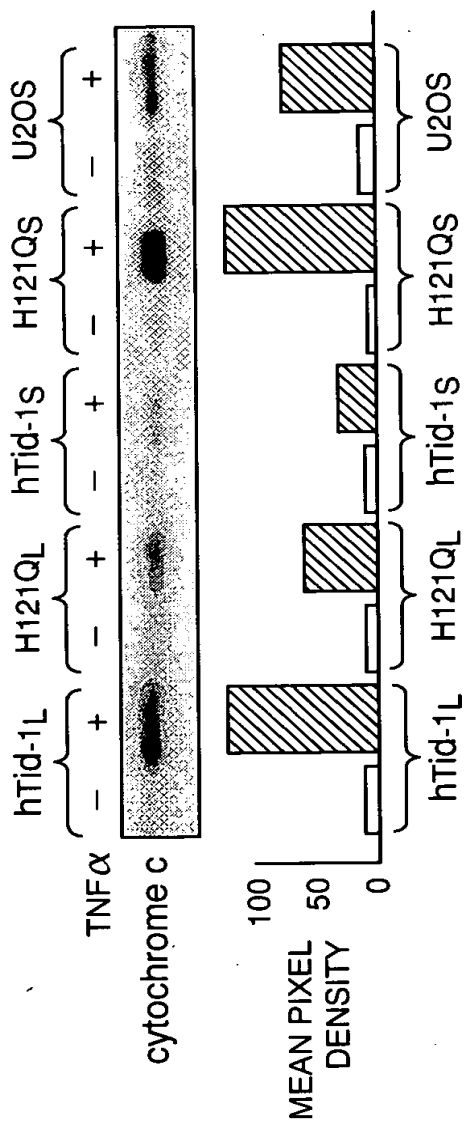


FIG. 4C



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Nucleotide sequence of coding sequence encoding hTid1L:

ATGgctgcgcggtgctccacacgctggttgctggtggttggtggggaccccgcggtgccggctatatcgggtagaggggc  
ccggccgcccaggaggcggtggtggggcatggctgagccgaagctgagcgtccccgcctttgcgtcttccctgacct  
cttgccggccccgagcgctgctgacattgagacctggtgtcagccttacaggaacaaaacataaccctttcatttgact  
gcctccttccacacgagtggccctttggccaaagaagattattatcagatattaggagtgcctcgaaatgccagccagaa  
agagatcaagaaagcctattatcagcttgccaagaagtatcacctgacacaaataaggatgatcccaaagccaaggaga  
agttctcccagctggcagaagcctatgaggttttgagtgatgaggtgaagaggaagcagtagcctacggctctgca  
ggcttcgatcctggggccagcggctcccagcatagctactggaagggaggccccactgtggaccccgaggagctgttcag  
gaagatctttggcgagttctcatcctcttcatttgagatttccagaccgtgttgatcagcctcaggaatacttcatgg  
agttgacattcaatcaagctgcaaagggggtcaacaaggagttcacctgaacatcatggacacgtgtgagcgtgcaac  
ggcaaggggaacgagccccggcaccaaggtgcagcattgccactactgtggcggtccggcatggaaaccatcaacacagg  
cccttttgatgctgcttccacgtgtaggagatgtggtggccggtccatcatcatatcgccctgtgtggtctgcaggg  
gagcaggacaagccaagcagaaaaagcagtgatgatccctgtgcctgcaggagtcgaggatggccagaccgtgaggatg  
cctgtgggaaaaaggaaattttcattacgttcaggggtgcagaaaagccctgtgttccggaggggacggcgagacatcca  
ctccgacctctttatttctatagctcaggctcttcttgggggaacagccagagcccaggccctgtacgagacgatcaacg  
tgacgatccccctgggactcagacagaccagaagattcggtgggtgggaaaggcatccccggattaacagctacggc  
tacggagaccactacatccacatcaagatacagagttccaaaggagtaacgagccggcagcagagcctgatcctgagcta  
cgccgaggacgagacagatgtggaggggacggtgaacggcgtcacctcaccagctctggtggcagccatggatagct  
ccgcaggaagcaaggctaggcgtgaggctggggaggacgaggaggattcctttccaaacttaagaaaatgtttacctca  
TGA

Nucleotide sequence of coding sequence encoding hTid1S:

atggctgcGcggtgctccacacgctggttgctggtggttggtggggaccccgcggtgccggctatatcgggtagaggggc  
ccggccgcccaggaggcggtggtggggcatggctgagccgaagctgagcgtccccgcctttgcgtcttccctgacct  
cttgccggccccgagcgctgctgacattgagacctggtgtcagccttacaggaacaaaacataaccctttcatttgact  
gcctccttccacacgagtggccctttggccaaagaagattattatcagatattaggagtgcctcgaaatgccagccagaa  
agagatcaagaaagcctattatcagcttgccaagaagtatcacctgacacaaataaggatgatcccaaagccaaggaga  
agttctcccagctggcagaagcctatgaggttttgagtgatgaggtgaagaggaagcagtagcctacggctctgca  
ggcttcgatcctggggccagcggctcccagcatagctactggaagggaggccccactgtggaccccgaggagctgttcag  
gaagatctttggcgagttctcatcctcttcatttgagatttccagaccgtgttgatcagcctcaggaatacttcatgg  
agttgacattcaatcaagctgcaaagggggtcaacaaggagttcacctgaacatcatggacacgtgtgagcgtgcaac  
ggcaaggggaacgagccccggcaccaaggtgcagcattgccactactgtggcggtccggcatggaaaccatcaacacagg  
cccttttgatgctgcttccacgtgtaggagatgtggtggccggtccatcatcatatcgccctgtgtggtctgcaggg  
gagcaggacaagccaagcagaaaaagcagtgatgatccctgtgcctgcaggagtcgaggatggccagaccgtgaggatg  
cctgtgggaaaaaggaaattttcattacgttcaggggtgcagaaaagccctgtgttccggaggggacggcgagacatcca  
ctccgacctctttatttctatagctcaggctcttcttgggggaacagccagagcccaggccctgtacgagacgatcaacg  
tgacgatccccctgggactcagacagaccagaagattcggtgggtgggaaaggcatccccggattaacagctacggc  
tacggagaccactacatccacatcaagatacagagttccaaaggagtaacgagccggcagcagagcctgatcctgagcta  
cgccgaggacgagacagatgtggaggggacggtgaacggcgtcacctcaccagctctggAAAAAGATCCACTGGAAACT  
AG

FIG. 5





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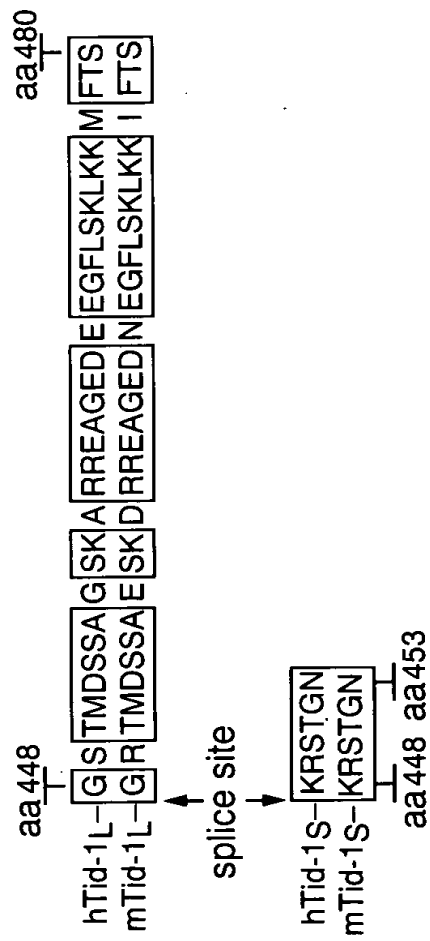


FIG. 6

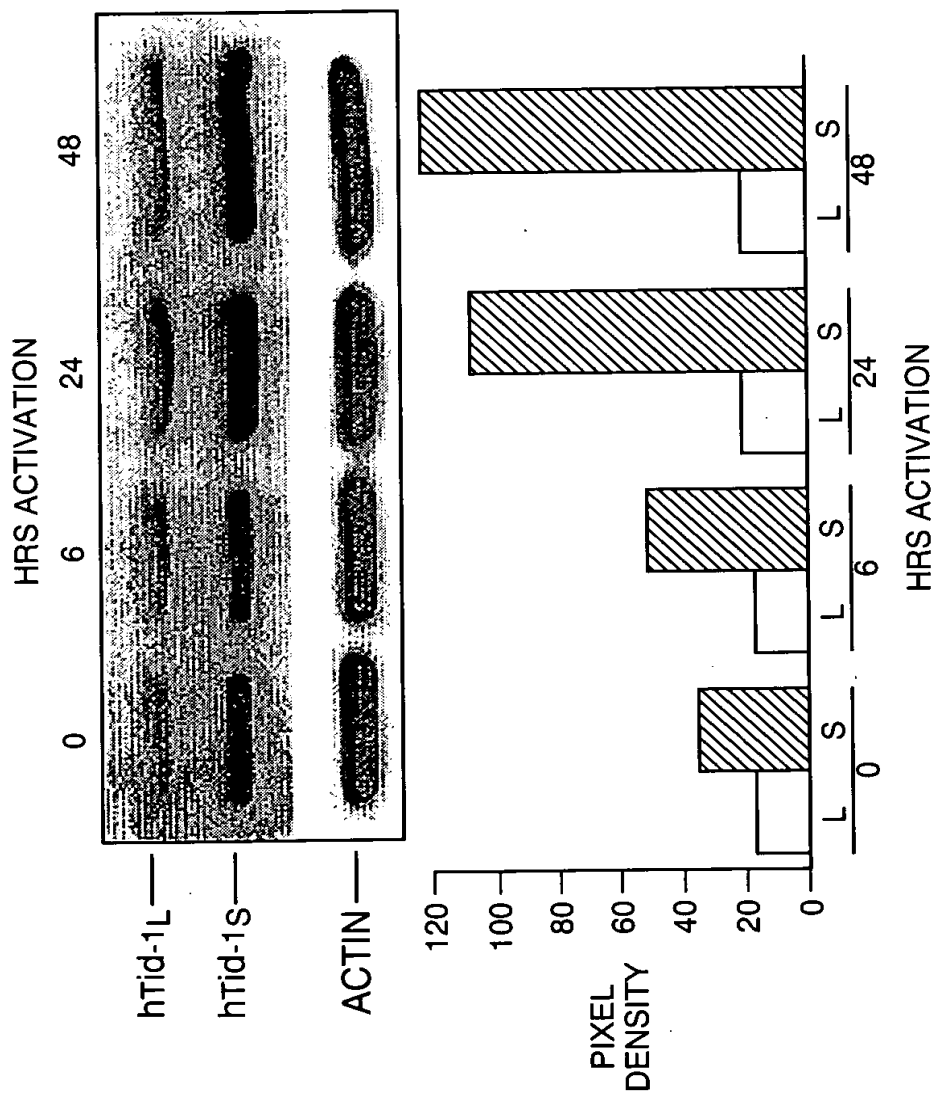


FIG. 7A



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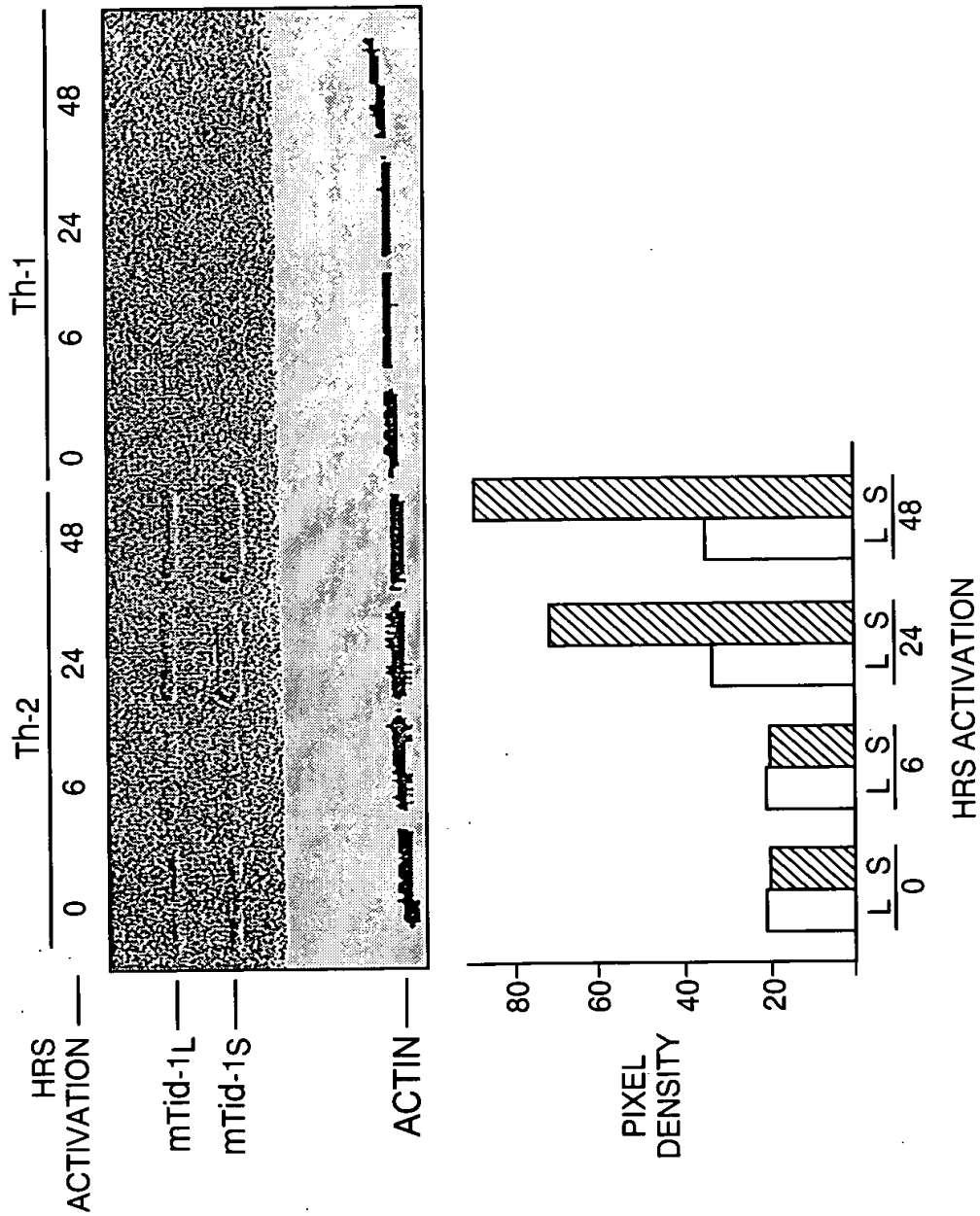


FIG. 7B



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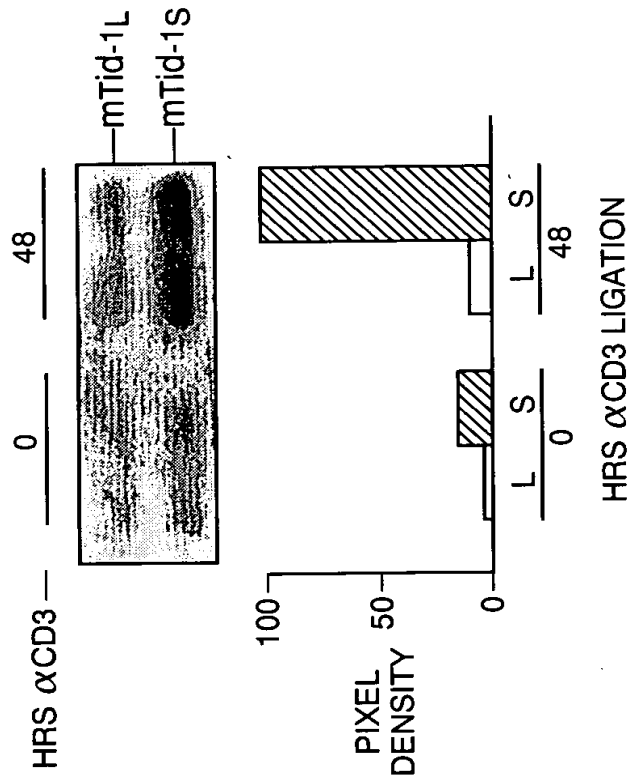


FIG. 7C

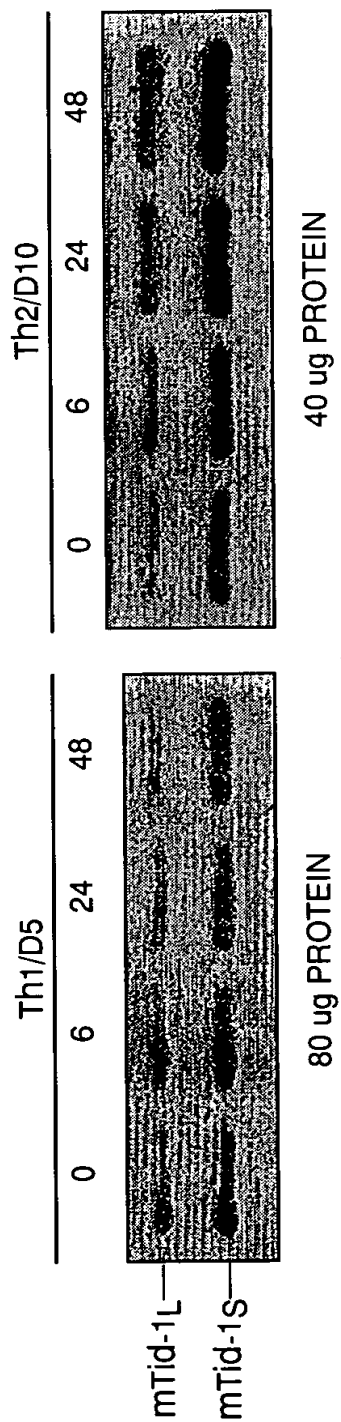


FIG. 7D



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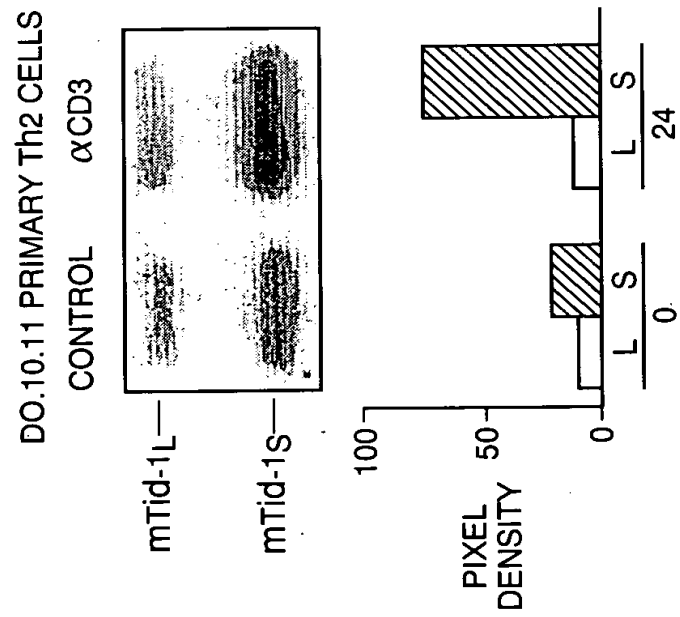


FIG. 7E

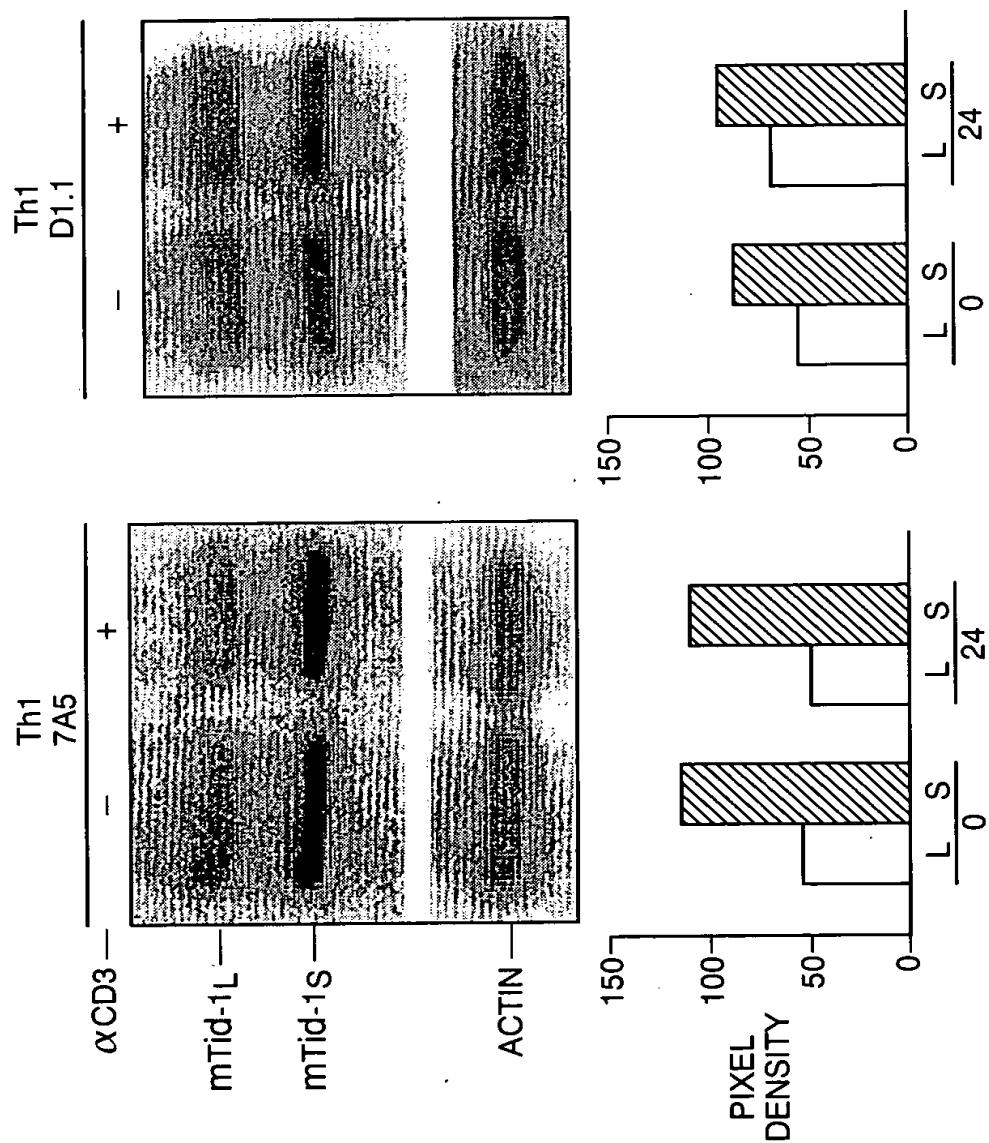


FIG. 7F1

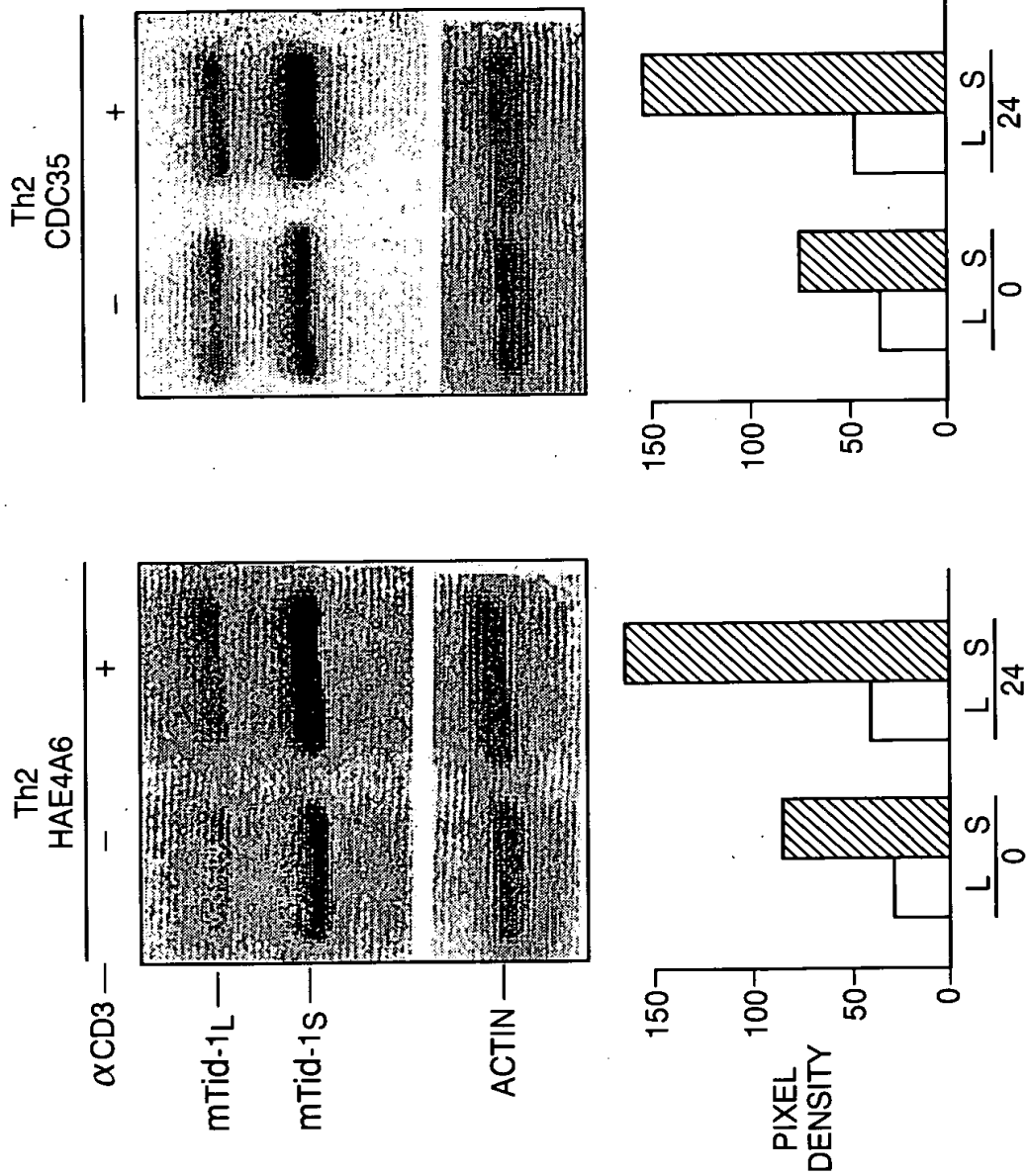


FIG. 7F2



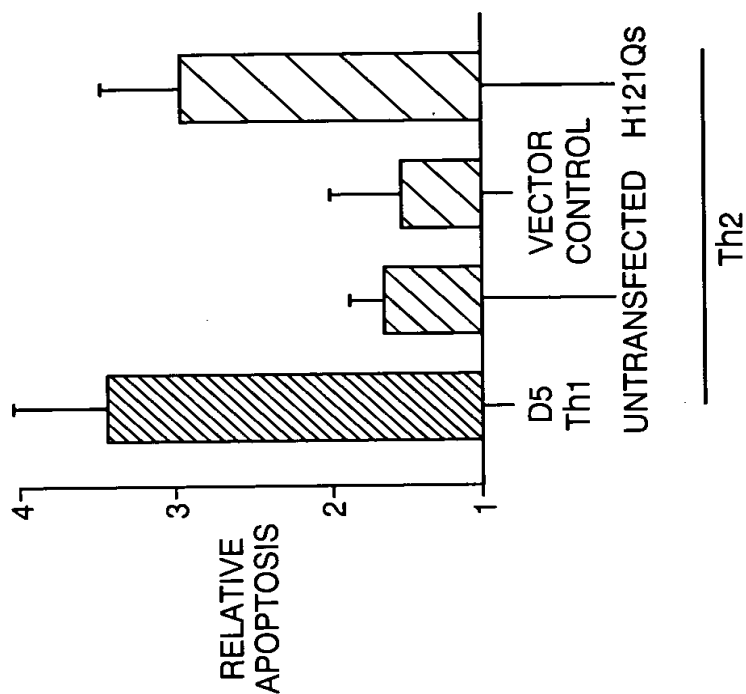


FIG. 8B

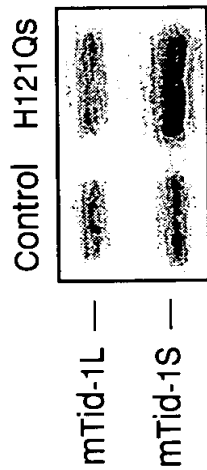


FIG. 8A



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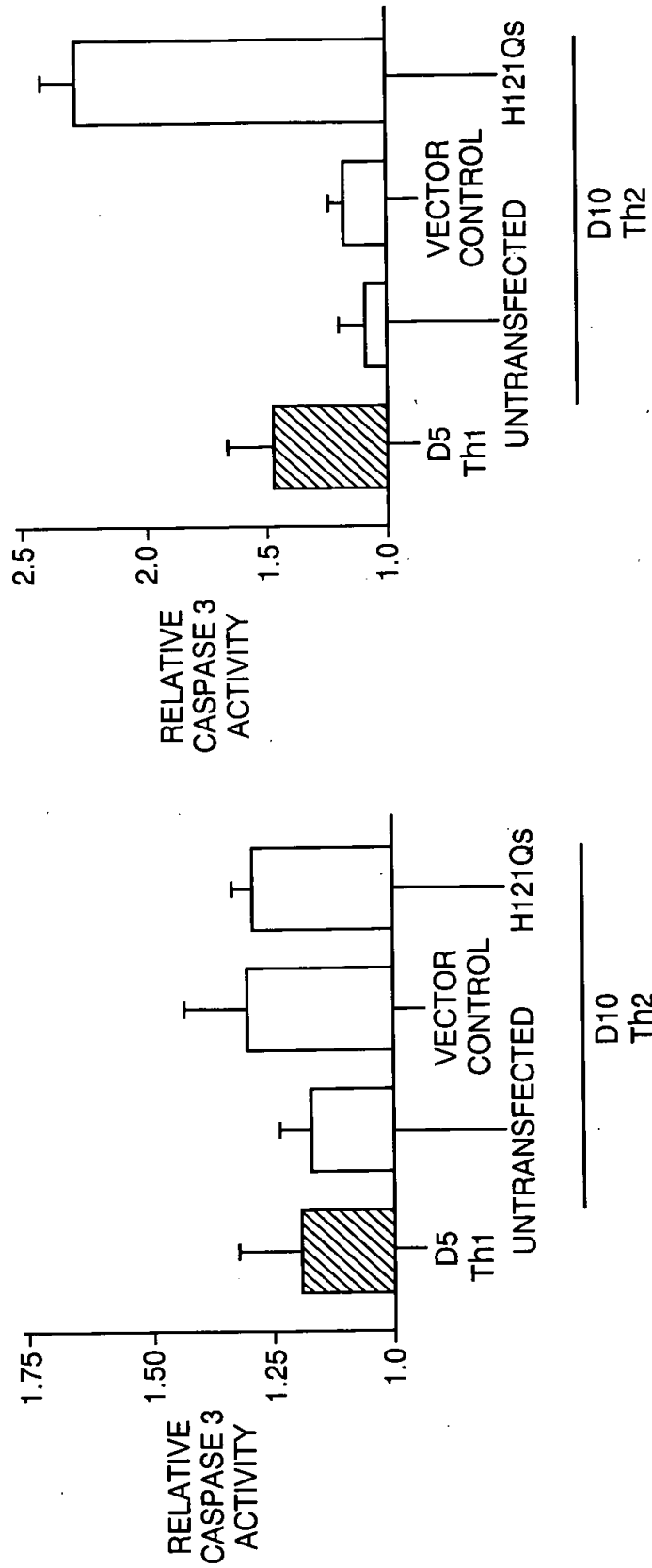


FIG. 9



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Amino acid sequence of mTid-1L:

MAAWCSPRWLRVAVGTPRLPAAAGRGVQQPQGGVVATSLCRKLCVSAFGLSMG  
AHGPRALLTLRPGVRLTGTKSFVCTTSFHTSASLAKDDYYQILGVPRNASQKDI  
KKAYYQLAKKYHPDTNKDDPKAKEKFSQLAEAYEVLSDEVKRKQYDAYGSAGF  
DPGTSSSGQGYWRGGPSVDPEELFRKIFGEFSSSPFGDFQNVVXXXXXXXXXXXXX  
XXXXXXXXKEFTVNIMDTCERC DGKGNPGTKVQHCHYCGGSGMETINTGPFVMR  
STCRRCGGRGSIITNPCVVCRGAGQAKQKKRVTIPVPAGVEDGQTVRMPVGKREIF  
VTFRVQKSPVFRRTCADIHSDLFISIAQAILGGTAKAQGLYETINVTIPAGIQTDQKI  
RLTGKGIPRINSYGYGDHYIHIKIRVPKRLSSRQQNLILSYAEDET DVEGTVNGVTH  
TSTGGRTMDSSAESKDRREAGEDNEGFLSKLKKIFTS

Amino acid sequence of mTid-1S:

MAAWCSPRWLRVAVGTPRLPAAAGRGVQQPQGGVVATSLCRKLCVSAFGLSMG  
AHGPRALLTLRPGVRLTGTKSFVCTTSFHTSASLAKDDYYQILGVPRNASQKDI  
KKAYYQLAKKYHPDTNKDDPKAKEKFSQLAEAYEVLSDEVKRKQYDAYGSAGF  
DPGTSSSGQGYWRGGPSVDPEELFRKIFGEFSSSPFGDFQNVVXXXXXXXXXXXXX  
XXXXXXXXKEFTVNIMDTCERC DGKGNPGTKVQHCHYCGGSGMETINTGPFVMR  
STCRRCGGRGSIITNPCVVCRGAGQAKQKKRVTIPVPAGVEDGQTVRMPVGKREIF  
VTFRVQKSPVFRRTCADIHSDLFISIAQAILGGTAKAQGLYETINVTIPAGIQTDQKI  
RLTGKGIPRINSYGYGDHYIHIKIRVPKRLSSRQQNLILSYAEDET DVEGTVNGVTH  
TSTGKRSTGN

FIG. 10





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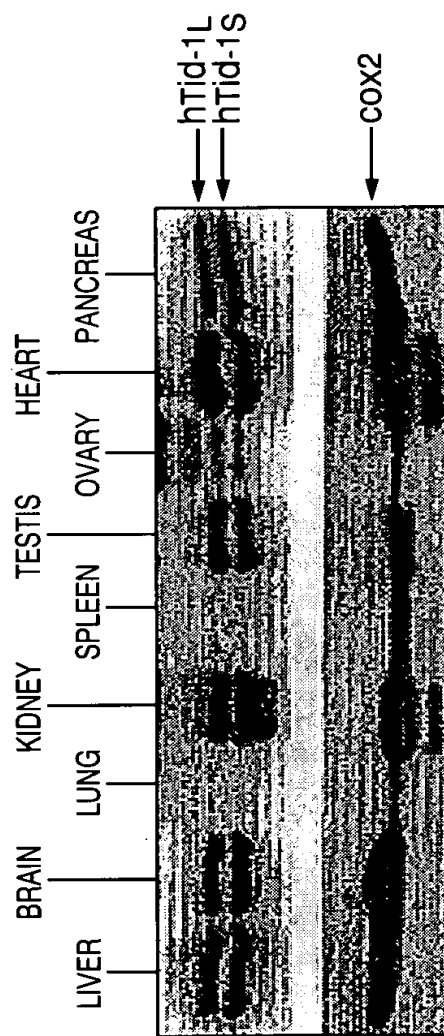


FIG. 11